

U.S. DISTRICT COURT  
FOR THE DISTRICT OF NEW HAMPSHIRE  
2005

UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF NEW HAMPSHIRE

Howard J. Dananberg, D.P.M.

v.

Case No. 00-CV-34-PB

Payless ShoeSource, Inc.

MEMORANDUM AND ORDER

Howard Dananberg claims that Payless ShoeSource, Inc. ("Payless") is currently selling shoes that infringe on U.S. Patent No. 4,597,195 ("195 patent"). In my March 30, 2004 Memorandum and Order ("March 30 Order"), I construed one of the disputed claim terms in the '195 patent, but declined to construe two other disputed terms because the parties had not adequately briefed the claim construction issues concerning those terms. In light of the parties' supplemental briefs, I now construe the remaining terms.

I.

Dananberg's '195 patent identifies various ways in which a shoe sole or insole can be designed to improve gait. As I explained in the March 30 Order, the central idea that underlies

the '195 patent is that plantarflexion<sup>1</sup> and eversion<sup>2</sup> of the first metatarsal head can be promoted, and the wearer's gait improved, by providing a portion of reduced support in a shoe sole or insole under the first metatarsal head. Two of the '195 patent's claims are at issue. The first, claim 1, states (with emphasis on the disputed terms):

A human shoe sole having a foot supporting upper surface, a portion of said sole, *extending from* said upper surface into said sole and underlying substantially only the location of the first metatarsal head of a wearer's foot, being of reduced support relative to the remainder of said sole to provide less resistance to downward motion than the remainder of said surface to *facilitate* eversion and plantarflexion of said metatarsal head, wherein said portion does not extend forward of said first metatarsal head.

The second, claim 10, states (with emphasis on the disputed terms):

A human shoe sole to facilitate downward motion of the first metatarsal head, of a human foot supported by

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<sup>1</sup> Plantarflexion is a movement that occurs during contraction of the peroneus longus, the tendon that connects the heel and first metatarsal head. The contracting tendon pulls the first metatarsal head downward and back toward the heel, creating increased foot arch, as when one "points the toes."

<sup>2</sup> Eversion is the medial rotation of the metatarsal bone so that the sole of the foot twists outward and upward away from the midline of the body.

said sole, relative to the rest of said foot to *promote* eversion and plantarflexion of said first metatarsal head, said sole having an upper surface for supporting said foot, a portion of said sole *extending downward* from said upper surface and underlying said first metatarsal head being of reduced support relative to the remainder, including those portions under the other metatarsal heads and the entire hallux, of the sole.

## II.

Claim construction presents a question of law. Liquid Dynamics Corp. v. Vaughan Co., 355 F.3d 1361, 1367 (Fed. Cir. 2004). The starting point is the language of the claim itself. Id. The words of a claim "are generally given their ordinary and customary meaning." Vitronics Corp. v. Conceptoronic, Inc., 90 F.3d 1576, 1582 (Fed. Cir. 1996); see also Toro Co. v. White Consol. Indus., Inc., 199 F.3d 1295, 1299 (Fed. Cir. 1999). "[O]rdinary and customary meaning" is, however, the "meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention." Phillips v. AWH Corp., 2005 WL 1620331, at \*5 (Fed. Cir. 2005). Significantly, as the Federal Circuit recently explained, "the person of ordinary skill in the art is deemed to read the claim term not only in the context of the particular claim in which the disputed term

appears, but in the context of the entire patent, including the specification.” Id. To determine the meaning of a claim term, courts look to sources available to the public, including the claims in which the term appears, the specification, prosecution history, and extrinsic evidence such as dictionaries that identify possible meanings. Id. at \*6.

Because claims do not stand alone, and instead are “part of a fully integrated written instrument,” claims must be read in view of the entire patent, including the specification, of which they are a part. Id. at \*7 (internal citations omitted). It is therefore always necessary to review the specification, which “acts as a dictionary when it expressly defines terms used in the claims or when it defines terms by implication.” Vitronics, 90 F.3d at 1582. Indeed, the specification “is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term.” Id.; see also Multiform Desiccants, Inc. v. Medzam Ltd., 133 F.3d 1473, 1478 (Fed. Cir. 1998) (“[T]he best source for understanding a technical term is the specification from which it arose. . . .”); Metabolite Labs., Inc. v. Lab. Corp. of Am. Holdings, 370 F.3d 1354, 1360 (Fed. Cir. 2004) (“In

most cases, the best source for discerning the proper context of claim terms is the patent specification wherein the patent applicant describes the invention."); Kirik Co. v. ITC, 362 F.3d 1359, 1365 (Fed. Cir. 2004) (similar); Moba, B.V. v. Diamond Automation, Inc., 325 F.3d 1306, 1315 (Fed. Cir. 2003) (similar). Nonetheless, particular embodiments appearing in a patent's specification will not be used to limit claim language that has a broader effect. Innova/Pure Water, Inc. v. Safari Water Filtration Sys., 381 F.3d 1111, 1117 (Fed. Cir. 2004).

"In most situations, an analysis of the intrinsic evidence alone will resolve any ambiguity in a disputed claim term." Vitronics, 90 F.3d at 1583. Extrinsic evidence thus generally should be considered only when ambiguity cannot be resolved by consulting the intrinsic evidence. See SunRace Roots Enter. Co., Ltd. v. SRAM Corp., 336 F.3d 1298, 1307 (Fed. Cir. 2003). Such evidence, particularly dictionaries and treatises, can help educate the court regarding the field of the invention and can also help the court determine what a person of ordinary skill in the art would understand claim terms to mean. Phillips, 2005 WL 1620331, at \*11. Accordingly, "it is permissible for the district court in its sound discretion to admit and use such

evidence." Id.

I apply these interpretive standards in construing the '195 patent.

### III.

Claims 1 and 10 are limited in several ways. The parties remain in disagreement as to the meaning of two similar limitations in each claim. I address each in turn.

#### A. "Extending From" & "Extending Downward"

In my March 30 Order, I noted that claim 1 limits the portion of the sole that is of reduced support to the portion "extending from said upper surface into said sole . . . ," and that the corresponding language in claim 10 provides that the portion of reduced support is the portion "extending downward from said upper surface. . . ." The parties disagree as to the meaning of these limitations.

Payless argues that the limitations encompass only structures that are of reduced support at the upper surface of the shoe sole and that extend into the sole. Payless thus contends that the claims are limited to designs that either leave

a void in the shoe sole at the upper surface' or that have material at the upper surface that is of reduced support to the remainder of the sole.

I find Payless's argument on this issue persuasive, and thus adopt its interpretation. Reading the claim language under the "ordinary meaning" guidelines of Phillips and Vitronics, a "portion" that is "extending from said upper surface into said sole" is a limitation that describes where on a vertical plane the portion is relative to the upper surface. Payless submits that the limitation is met whenever any part of the border defining the relevant "portion" is contiguous with the upper surface of the sole.

In support of its construction, Payless argues that claims 2, 3 and 4 instruct that "extending from" is a structural

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Payless argues in its Supplemental Markman Brief that Dananberg distinguished the claimed "portion" from a depression or a hollow during prosecution in an attempt to distinguish a prior patent to Wedd, which claimed an insole design with a dimple in the upper surface. Hence, Payless contends that Dananberg has surrendered a void, crater, or cavity as a qualifying "portion." I disagree. The distinction made over Wedd was about the *location* of the relevant portion--under the toe joint versus under the metatarsal head--not about its content. I thus conclude that Dananberg has not disavowed a design that includes a void, cavity, or crater, either in the prosecution history or in arguments made to this court.

limitation. "Other claims of the patent in question . . . can also be valuable sources of enlightenment as to the meaning of a claim term." Phillips, 2005 WL 1620331, at \*7; see Vitronics, 90 F.3d at 1582. Because in the typical case claim terms are used consistently throughout the patent, "the usage of a term in one claim can often illuminate the meaning of the same term in other claims." Id.; see Rexnord Corp. v. Laitram Corp., 274 F.3d 1336, 1342 (Fed. Cir. 2001); CVI/Beta Ventures v. Tura LP, 112 F.3d 1146, 1159 (Fed. Cir. 1997). Here, as in claim 1, claims 3 and 4 use the phrase "extending from said upper surface" to indicate structure. Claim 2 requires that the portion of reduced support be softer than the remainder of the sole. Claim 3 then depends from claim 2 to require that the softer material be present to fill an opening in the sole that is "extending from said upper surface." This use of "extending from," Payless urges, is plainly structural because an opening is not capable of an "extending" motion or function. Likewise, claim 4 describes an "opening formed in said sole and extending from said upper surface." Hence, the "extending from" language requires that the opening be structurally located in the sole's upper surface.

The '195 patent's specification further supports the conclusion that persons of ordinary skill in the art of podiatry and shoe construction would understand that "extending from" is a structural rather than functional limitation. For instance, in the "Summary of The Invention," the specification describes a portion comprised of "a lower durometer (by comparison to the remaining midsole) material placed directly under the first metatarsal head in a cutout of the original midsole material." '195 patent, col. 1, 42-46. The specification's description of the placement of the portion provides additional evidence of the locational and structural component of the claim term "extending from."

Payless further submits extrinsic evidence that the relevant definition of the root verb "extend," from Webster's Ninth Collegiate Dictionary's is: "to stretch out in distance, space or time: REACH (his jurisdiction ~ed over the whole area.)." Additionally, Webster's relevant definition of "from" is: "a starting point in measuring or reckoning in a statement of limits (a week ~ today)." Thus, in context, the meaning of "from" necessitates that the portion be present at the upper surface, otherwise the portion could not be "extending from" the upper

surface into the sole. The example offered by Webster's is particularly instructive in this case. In the sentence, "His jurisdiction extended over the whole area," the subject "jurisdiction" acts by "extend[ing]," as modified by the adverbial prepositional phrase, "over the whole area." Similarly, as recited in claim 1, the subject "portion" acts by "extending," as modified by the adverbial prepositional phrase, "from said upper surface into said sole." This claim language describes a location reaching from the upper surface into the sole. The outcome of the analysis is identical when considering the phrase "extending downward from said upper surface," in claim 10.

Payless also contends that when used to modify objects, the term "extending from" always describes location. For example, the Louisiana Purchase can be described as "extending from" the Mississippi River to the Rocky Mountains, and a ladder can be described as "extending downward from" a manhole opening. Hence, the limitations recited in claims 1 and 10 are plainly structural and not functional.<sup>4</sup> Payless further argues that the limitations

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<sup>4</sup> Payless's construction is also consistent with the meaning given to the relevant terms in the written description

described in claims 1 and 10 are similar to the limitations described in Cole v. Kimberly-Clark, and therefore should likewise be construed as structural. In Cole, the patent at issue claimed a type of disposable training brief for toddlers that comprised "perforation means *extending from* the leg band means to the waist band means through the outer impermeable layer means for tearing the outer impermeable layer means. . . ." 102 F.3d 524, 526-27 (Fed. Cir. 1996) (emphasis added). In concluding that the claim was not subject to 35 U.S.C. § 112, ¶ 6 because it recited sufficient structure, the Federal Circuit held that there was

no reason to construe any of the claim language . . . as reciting means plus function elements within the meaning of § 112, ¶ 6. . . . The claim describes *not only the structure* that supports the tearing function, *but also its location (extending from the leg band to the waist band) and extent (extending through the outer impermeable layer)*. An element with such a detailed

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and drawings of the '195 patent. Although the specification does not use the word "extend" to describe the portion because this term was added to the claims by amendment during prosecution, Figures 5, 5A, 6, 7, and 8 of the '195 patent clearly demonstrate that the "portion" extends from the upper surface (12) into the sole (10). Structurally, the borders of the portion extend from the upper sole surface down into the sole material. Furthermore, the specification does not describe or suggest any embodiment in which the borders of the portion are not contiguous with the sole's upper surface.

recitation of its structure, as opposed to its function, cannot meet the requirements of the statute.

Id. at 531 (emphasis added). In Cole, as here, "extending from" clearly describes location rather than function.

Dananberg originally argued that the limitations are functional and therefore include *all* structures that produce reduced support at the upper surface of the sole. According to Dananberg's initial interpretation, a structure that produces reduced support under the first metatarsal head at the surface of the sole by creating a void or hollow in the midsole or the underside of the sole would be covered even if the upper surface of the sole is comprised of material of equivalent resistance to the remainder of the sole. In Plaintiff's Reply to Defendant's Supplemental Markman Brief, however, Dananberg concedes that "extending from" is a structural limitation, in the sense that it requires the "portion" of reduced support to be contiguous with the upper surface of the sole. Likewise, in his Supplemental Markman Memorandum, Dananberg agrees that the relevant portion "must start at the upper surface . . . because that is where the foot contacts the sole to receive its support."

Although he now agrees that "extending from" is a structural limitation, Dananberg nevertheless disputes Payless's analysis of the third of three potential designs presented at page eight of its Supplemental Markman Brief. In support of its argument that the ordinary meaning of "extending from" describes a structure or location, Payless offers three versions of a sole to illustrate designs that would and would not be covered by Dananberg's claims. See Attachment (depicting three versions). Payless argues that version A, which depicts an area of reduced support contiguous with and reaching down from the upper surface of the sole, and version B, which depicts a void or hollow contiguous with and reaching down from the upper surface of the sole, would meet the limitation of the '195 patent. Conversely, Payless argues that version C, which depicts a void that extends partially into the sole from the bottom without contacting the upper surface of the sole, does not meet the limitation.

Dananberg counters that Payless has focused on the wrong "portion" of version C. Under his interpretation, the only relevant portion of version C is the portion above the void. He argues that the portion above the void is contiguous with the

upper sole surface and is therefore covered by the claims if, but only if, it has reduced support (because of its material or geometry, or both) and is otherwise located as claimed. I disagree. In designs such as those depicted in version C, the reduced support is produced by a void that extends from the bottom of the sole rather than the area of the sole that is above the void. Because the area of reduced support in such designs does not extend from the upper surface of the shoe sole, such designs are not covered by either claim 1 or claim 10. Accordingly, with respect to claims 1 and 10, I construe the terms "extending from" and "extending downward" to be a structure of reduced support at the upper surface of the shoe sole. If neither limitation is present in the sole design, there is no infringement.

**B. "Facilitate" or "Promote"**

Having concluded that the terms "extending from" and "extending downward" are structural, I now construe the terms "facilitate" and "promote." Claim 1 provides that the portion of the sole that is of reduced support must "facilitate eversion and plantarflexion of said metatarsal head. . . ." Similarly, claim 10 states that the portion of reduced support must "promote

eversior and plantarflexion of the first metatarsal head. . . .” Payless argues that these limitations are means-plus-function elements that restrict the claims to the embodiments disclosed in the specification and equivalents thereof, pursuant to 35 U.S.C. § 112, ¶ 6. I disagree.

Section 112, ¶ 6, permits an inventor to express an element of a claim “as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof. . . .” Id. When a claim element is expressed in such terms, the claim is restricted to “corresponding structure, material, or acts described in the specification and equivalents thereof.” Id.

Under the analytical framework developed by the Federal Circuit, if a claim element uses the term “means” or “step” in combination with a recited function, it is presumed to be a means-plus-function element. See Al-Site Corp. v. VSI Int’l, Inc., 174 F.3d 1308, 1318 (Fed. Cir. 1999). If, instead, the claim element does not contain either “means” or “step,” a rebuttable presumption that § 112, ¶ 6 does not apply will be triggered. Linear Tech. Corp. v. Impala Linear Corp., 379 F.3d

1311, 1319 (Fed. Cir. 2004). A claim element ultimately will not be treated as a means-plus-function claim element, regardless of whether it speaks of "means" or "steps" for performing the recited function, if it recites sufficient structure to completely perform the related function. Al-Site Corp., 174 F.3d at 1318.

Although neither of the claims at issue in this case use the term "means" or "steps," Payless urges that I should presume that § 112, § 6 applies to the limitations in question. Payless argues that the terms "to promote" and "to facilitate," as used in claims 1 and 10, are synonymous with the term "so that," which it contends is equivalent to "means for." See, e.g., Cole, 102 F.3d at 531; Raytheon Co. v. Roper Corp., 724 F.2d 951, 957 (Fed. Cir. 1983), cert denied, 469 U.S. 835 (1984) ("so that" is the equivalent of "means for" for purposes of § 112, § 6). Payless further argues that the claims recite insufficient structural language to explain how the inventions promote eversion and plantarflexion. I reject both arguments.

First, Payless is not entitled to a presumption that claims 1 and 10 are means plus function claims. Payless has offered

little more than bare assertion to support its position that the presumption applies because "to promote" and "to facilitate" are synonymous with "so that." Such unsupported assertions are insufficient to warrant a presumption that a claim's functional language is subject to § 112, ¶ 6.

Second, claims 1 and 10 are not subject to § 112, ¶ 6 even if Payless were entitled to the presumption because both claims completely disclose the structures by which eversion and plantar flexion are promoted. Claim 1 explains that eversion and plantarflexion are facilitated by the use of a shoe sole that has an area of reduced support that extends from the upper sole surface, that does not extend forward of the first metatarsal head of the wearer's foot, and that underlies only the first metatarsal head. Claim 10 similarly states that eversion and plantarflexion are promoted by a shoe sole with an area of reduced support that extends downward from the upper sole surface and is located under the first metatarsal head. Eversion and plantarflexion plainly are facilitated by the structures disclosed in claims 1 and 10 when a wearer's foot contacts a sole or insole surface with such features. Thus, regardless of which of § 112, ¶ 6's presumptions applies, the claims are not subject

to the provision's limitations because they completely disclose the structures that produce the identified functions.

SO ORDERED.

A handwritten signature in black ink, appearing to read 'Paul Barbadoro', is written over a horizontal line.

Paul Barbadoro  
United States District Judge

August 5, 2005

cc: Robert E. Hillman, Esq.  
W. Wright Danenbarger, Esq.  
James P. Bassett, Esq.  
William A. Rudy, Esq.  
Peter Kirk, Esq.

ATTACHMENT

